

REMARKS

Claims 13, 14 and 16 are pending in this application, of which claim 13 has been amended. Claims 1-12, 15 and 17-19 are canceled. No new claims have been added.

The Examiner has objected to claims 13, 14 and 16 for using a semicolon instead of a period following each of the aforementioned claim numbers in the claim listing.

Applicants do not understand the objection because the Preliminary Amendment filed December 22, 2005 fails to use either a semicolon or a period after the aforementioned claim numbers.

Claims 13, 14 and 16 stand rejected under 35 U.S.C. § 112, second paragraph, as indefinite for reciting “other elements,” which “renders indefinite the metes and bounds of protection sought by claim 13 and all claims depending therefrom.”

Accordingly, claim 13 has been amended by canceling this limitation.

Thus, the 35 U.S.C. § 112, second paragraph, rejection should be withdrawn.

Claims 13, 14 and 16 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Ishida et al. in view of Yamakage.

Applicants respectfully traverse this rejection.

FIGS. 6, 8 and 9 of Ishida et al. show that heat pipe 20 is inserted in “the attaching recess 1b of the base plate 1 and closely attached thereby covering it by a fixing plate 1c and by threading by screws (FIG. 6).”

This is in contrast to the present invention, in which a plurality of heat pipes are fixed to flat portions of the upper surface of the heat receiving plate, as shown in FIGS. 3-6 and 9-10 of the instant application.

Yamakage discloses a cooling device for an electronics element body in which a heat pipe is expanded and then inserted into and attached thereto to a side wall of a lobe with a bottom in a metal block as a unitary body. Heat is absorbed and the heat is sent to the heat sink part of the heat pipe, and heat is radiated to the outside.

The Examiner has urged:

Nevertheless, it is known in the art and taught by Yamakage [see especially Figure 6] to have a significantly or noticeably larger distance between a heat receiving plate 2 and the closest fin 6 of a heat pipe 9 having at least one end in the heat receiving plate 2 where the finned end and fins 6 of the heat pipe 9 are disposed in the duct 7 and the other end of the heat pipe 9 is disposed in the heat receiving plate 2 in order to optimize/maximize the heat transfer rate away from an electronic/semiconductor device 1 as taught by Yamakage. It is also taught by Yamakage to have, in a heat pipe cooler arrangement including a ventilation duct 7 and a plurality of heat pipes 4 [see Figures 5 and 6], the heat receiving plate or block 2 disposed entirely outside the ventilation duct 7 in order to more readily dissipate heat to ambient while minimizing thermal stresses to the duct.

Yamakage, like Ishida et al., discussed above, fails to teach, mention or suggest that a plurality of heat pipes are fixed to flat portions of said upper surface.

Furthermore, FIG. 12 and page 8, line 33 to page 9, line 3 of the specification of the instant application discloses that each of the plurality of heat pipes is located at a slant with respect to the heat receiving plate so that cooling air directly collides not only with upstream heat pipe end portions but also with downstream heat pipe end portions, thereby improving heat

U.S. Patent Application Serial No. 09/044,030
Response to Office Action dated March 9, 2006

radiation for the plurality of heat pipes.

Accordingly, claim 13 has been amended to recite these distinctions.

Thus, the 35 U.S.C. § 103(a) rejection should be withdrawn.

In view of the aforementioned amendments and accompanying remarks, claims 13, 14 and 16, as amended, are in condition for allowance, which action, at an early date, is requested.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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